

OXIDE SEMICONDUCTOR ELECTRODE AND  
PROCESS FOR PRODUCING THE SAME

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ABSTRACT OF THE DISCLOSURE

10       The present invention provides an oxide  
semiconductor electrode which can realize a combination  
of high transparency with large surface area and is  
highly responsive to ultraviolet light, as well as to  
visible light. The oxide semiconductor electrode  
comprises a conductive substrate and an oxide  
15       semiconductor layer provided on the conductive substrate.  
The oxide semiconductor layer is a porous layer  
comprising porous titania particles which have been  
joined to each other to define interparticulate  
communicating pores. Preferably, the pores possessed by  
20       the titania particles per se have a diameter of 10 to 40  
nm, the interparticulate communicating pores have a  
diameter of 10 to 70 nm, and the titania particles have  
an average diameter of 10 to 70 nm.